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TAGS: [ENRG](#) [ECON](#) [SENV](#) [GM](#)
SUBJECT: GM Europe Working on Fuel Cell, Other New Transport
Technologies; Notes Need for Common Standards

Sensitive but Unclassified / Contains Business-Proprietary
Information.

¶1. (SBU) SUMMARY: General Motors Europe representatives, meeting with visiting Council on Environmental Quality (CEQ) Chairman James Connaughton, described the work being done in the facility to develop passenger vehicles powered by hydrogen fuel cells as well as work on intermediate technologies. Points made in the presentations included the need for work with research institutions to develop answers to specific problems/aspects of the technology's development (rather than broad, conceptual research) and the necessity for governments, including the U.S. and the EU / EU member states, to create the regulatory environment essential to the development and marketing of such new vehicles. Participants also noted that differences over regulations between the U.S. and the EU could hamper the development/sales of such new technologies in markets such as India and China where they could have a great positive environmental impact. END SUMMARY.

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Full-Scale Commercialization Still Ten Years Out
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¶2. (U) In an October 23 visit to the GM/Opel GM Fuel Cell Activities Center in Mainz-Kastel (near Frankfurt), White House Council on Environmental Quality Chairman James Connaughton was briefed on fuel cell vehicle development and biofuel developments by GM Europe (Opel) representatives. Staff from CEQ, ConGen Frankfurt, and Embassy Berlin also participated in the meeting. The Center integrates and tests GM's fuel cell vehicles (many of whose components are developed and produced in the United States). NOTE: other GM fuel cell centers include Warren, MI (headquarters), Rochester, NY (fuel cells) and Torrance, CA (electric motors).

¶3. (SBU) Gherardo Corsini (GM Europe Director of Environmental Strategy and Regulation) described the company's progress towards environmentally sustainable vehicles -- ultimately hydrogen fuel cell cars, but only after first better gasoline/diesel internal combustion engines, then bio-fueled, and then hybrid engines. Corsini and Dr. Lars Peter Thiesen (Manager, Fuel Cell Development) said that full-scale commercialization is not likely before 2015 despite aggressive efforts by GM -- its latest rollout this year is "Project Driveway" in which one hundred Chevrolet Equinox SUVs, converted to run on hydrogen fuel cells, will be deployed in various cities (comprising the world's largest fuel cell fleet). Fuel cells still face hurdles in terms of durability, safety, and affordability. A related issue is the need for the infrastructure to support hydrogen-powered vehicles, e.g., fuel and repair stations. Connaughton commented that he had recently inaugurated hydrogen fuel stations in the U.S., a promising development.

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Need to Consider Overall Impact and Commercial Viability

14. (SBU) Opel reps commented that for the next ten to fifteen years, conventional and hybrid engines will be the key developments and therefore should be the focus of today's concerns. Principles the company is observing in developing the new transport technologies:

-- customer preferences;

-- technology that can sell at a price customers are willing to pay; and

-- do not focus on just one improvement, but rather on an overall positive impact.

Expanding on this last point, regulators should not target fuel efficiency in a vacuum, the company officials argued. Instead, they should consider consumer preferences and the commercial/technical limitations of new technology.

15. (SBU) As a result of this approach, GM prefers to focus new environmental technology in larger-sized vehicles - e.g., introducing hybrid technology in larger SUV's and other truck-based vehicles with "more bang for the buck" in terms of fuel savings. This approach is sometimes controversial among environmental activists who want to see only smaller vehicles on the road. In fact, GM's "Urea" clean diesel technology requires a supplemental catalyst tank -- impractical for a small vehicle. Putting it in a small vehicle would necessitate specialized refilling every few months. The thinking in GM Europe is that the urea tank should only be refilled every 25,000 - 35,000 km.

16. (U) Connaughton agreed that whether diesel, bio-fuels, or

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hybrids, governments should pursue integrated policies on transportation/ emissions rather than targeting only vehicle technology. For instance, the U.S. and Europe have a symbiotic relationship on gasoline/diesel -- greater European diesel penetration complements the gasoline-centric U.S. market -- so a move towards more diesel vehicles in the U.S., while very advantageous for fuel efficiency, could put pressure on diesel fuel supplies worldwide.

Promoting Fuel Cell Cars: The Way Ahead

17. (SBU) The GM Europe and CEO reps compared notes on the USG's \$1.2 billion/five-year fuel cell program versus the European Union's upcoming EUR 6.7 billion/ten-year program (of which half would come from private sources). In Germany, development is focused on the Transport Energy Strategy (TES), a consortium including DaimlerChrysler, BMW, Volkswagen, MAN, Shell, ARAL, and RWE. Funds come in roughly equal portions from industry and government, while research is carried out through private firms and public/private universities. This differs from the U.S. approach in which national labs play a leading role.

18. (SBU) CEO Chairman Connaughton asked whether current funding in Europe is "too much or too little" in terms of efficient utilization. GM reps replied that, while there's always more research one might wish to do, in fact coordinating spending is the first priority. General Motors and other large automakers are well placed to integrate fuel cell technology; basic research should focus instead on fundamental issues rather than rush towards integration or commercialization.

19. (SBU) GM reps commented that it is too early to regulate fuel cell cars -- the technology is too young -- but the U.S. and Europe ought to work now towards a regulatory regime that is integrated and not bifurcated (Connaughton agreed). Standards should focus on performance/outcomes rather than on specific technologies which are subject to change. Without a harmonization in standards, the

technology's development and marketization will be stymied -- including in its sales to key third markets such as China and India. Thus it is important that the U.S. and the EU find a way to accept or harmonize standards to reap the energy savings, energy security, and environmental/climate benefits of these new transportation technologies.

¶10. (U) This cable was cleared by CEQ subsequent to Chairman Connaughton's departure.

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